Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-25 : (Cancelled)

Claim 26. (New) : A method for processing an echo response, comprising:

simulating the echo response with adaptive tap coefficients;

updating the adaptive tap coefficients at times with an adaptive process having an adaptive gain; and

lowering the adaptive gain depending on an amount of background noise.

Claim 27. (New) : The method of Claim 26, further comprising initializing the adaptive gain.

Claim 28. (New) : The method of Claim 26, further comprising measuring the background noise.

Claim 29. (New): The method of Claim 26, wherein lowering the adaptive gain depending on an amount of background noise comprises lowering the adaptive gain when the background noise increases.

Claim 30. (New) : A method for processing an echo response of a far-end signal, comprising:

simulating the echo response with adaptive tap coefficients;

updating the adaptive tap coefficients at times with an adaptive process having an adaptive gain; and

lowering the adaptive gain in response to a narrow band signal condition.

Claim 31. (New) : The method of Claim 30, further comprising initializing the adaptive gain.

Claim 32. (New) : The method of Claim 30, further comprising detecting the narrow band signal condition.

Claim 33. (New) : The method of Claim 32, further comprising detecting the narrow band signal condition with a predictive filtering process.

Claim 34. (New) : The method of Claim 33, wherein the predictive filtering process is a fourth order predictive filtering process.

Claim 35. (New) : The method of Claim 33, wherein detecting the narrow band signal condition with a predictive filtering process comprises predictive filtering a far-end sample if a far-end power is greater than an amplitude threshold.

Claim 36. (New) : The method of Claim 33, wherein detecting the narrow band signal condition with a predictive filtering process comprises re-initializing the predictive filtering process if a far-end power is less than an amplitude threshold.

Claim 37. (New) : A method for processing an echo response, comprising:

simulating the echo response with adaptive tap coefficients;

updating the adaptive tap coefficients at times with an adaptive process having an adaptive gain; and

lowering the adaptive gain in response to a non-linear echo path condition.

Claim 38. (New) : The method of Claim 37, further comprising initializing the adaptive gain.

Claim 39. (New) : The method of Claim 37, wherein lowering the adaptive gain in response to a non-linear echo path condition comprises choosing a gain lower than 1 in response to a non-linear echo path condition.

Claim 40. (New) : The method of Claim 37, further comprising lowering the adaptive gain depending upon an amount of background noise.

Claim 41. (New) : A method for processing an echo response, comprising:

simulating the echo response with adaptive tap coefficients;

updating the adaptive tap coefficients at times with an adaptive process having an adaptive gain; and

adjusting the adaptive gain during substandard echo cancellation performance.

Claim 42. (New) : The method of Claim 41, further comprising initializing the adaptive gain.

Claim 43. (New) : The method of Claim 41, wherein the adaptive process has a convergence period.

Claim 44. (New) : The method of Claim 41, wherein adjusting the adaptive gain during substandard echo cancellation performance comprises adjusting the adaptive gain during steady state conditions.

Claim 45. (New) : The method of Claim 43, wherein adjusting the adaptive gain during substandard echo cancellation performance comprises adjusting the adaptive gain after the convergence period.

Claim 46. (New) : The method of Claim 43, wherein adjusting the adaptive gain during substandard echo cancellation performance comprises keeping the adaptive gain constant during the convergence period.

Claim 47. (New) : The method of Claim 45, wherein adjusting the adaptive gain after the convergence period comprises lowering the adaptive gain after the convergence period.